Xerox DocuPrint 2000 Series EPS

Tape Client Job Submission Guide

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Safety

Laser safety

WARNING

Adjustments, use of controls, or performance of procedures other than those specified herein may result in hazardous light exposure.

The Xerox DocuPrint printers are certified to comply with the performance standards of the U.S. Department of Health, Education, and Welfare for Class 1 laser products. Class 1 laser products do not emit hazardous radiation. The DocuPrint printers do not emit hazardous radiation because the laser beam is completely enclosed during all modes of customer operation.

The laser danger labels on the system are for Xerox service representatives and are on or near panels or shields that must be removed with a tool.

DO NOT REMOVE LABELED PANELS OR PANELS NEAR LABELS. ONLY XEROX SERVICE REPRESENTATIVES HAVE ACCESS TO THESE PANELS.

Ozone information: U. S. only

This product produces ozone during normal operation. The amount of ozone produced depends on copy volume. Ozone is heavier than air. The environmental parameters specified in the Xerox installation instructions ensure that concentration levels are within safe limits. If you need additional information concerning ozone, call 1-800-828-6571 to request the Xerox publication 600P83222, *OZONE*.

Operation safety: U. S.

Your Xerox equipment and supplies have been designed and tested to meet strict safety requirements. They have been approved by safety agencies, and they comply with environmental standards. Please observe the following precautions to ensure your continued safety.

WARNING

Improper connection of the equipment grounding conductor may result in risk of electrical shock.

- Always connect equipment to a properly grounded electrical outlet. If in doubt, have the outlet checked by a qualified electrician.
- Never use a ground adapter plug to connect equipment to an electrical outlet that lacks a ground connection terminal.
- Always place equipment on a solid support surface with adequate strength for its weight.
- Always use materials and supplies specifically designed for your Xerox equipment. Use of unsuitable materials may result in poor performance and may create a hazardous situation.
- Never move either the printer or the controller without first contacting Xerox for approval.
- Never attempt any maintenance that is not specifically described in this documentation.
- Never remove any covers or guards that are fastened with screws. There are no operator-serviceable areas within these covers.
- Never override electrical or mechanical interlocks.

- Never use supplies or cleaning materials for other than their intended purposes. Keep all materials out of the reach of children.
- Never operate the equipment if you notice unusual noises or odors. Disconnect the power cord from the electrical outlet and call service to correct the problem.

If you need any additional safety information concerning the equipment or materials Xerox supplies, call Xerox Product Safety at the following toll-free number in the United States:

1-800-828-6571

For customers outside the United States, contact your local Xerox representative or operating company.

Operation safety: Europe

This Xerox product and supplies are manufactured, tested and certified to strict safety regulations, electromagnetic regulations and established environmental standards.

Any unauthorised alteration, which may include the addition of new functions or connection of external devices, may impact the product certification.

Please contact your Xerox representative for more information.

Warning markings

All warning instructions marked on or supplied with the product should be followed.

This WARNING alerts users to areas of the product where there is the possibility of personal damage.

This WARNING alerts users to areas of the product where there are heated surfaces, which should not be touched.

Electrical supply

This product shall be operated from the type of electrical supply indicated on the product's data plate label. If you are not sure that your electrical supply meets the requirements, please consult your local power company for advice.

WARNING

This product must be connected to a protective earth circuit. This product is supplied with a plug that has a protective earth pin. This plug will fit only into an earthed electrical outlet. This is a safety feature. Always connect equipment to a properly grounded electrical outlet. If in doubt, have the outlet checked by a qualified electrician.

To disconnect all electrical power to the product, the disconnect device is the power cord. Remove the plug from the electrical outlet.

Ventilation

Slots and opening in the enclosure of the product are provided for ventilation. Do not block or cover the ventilation vents, as this could result in the product overheating.

This product should not be placed in a built-in installation unless proper ventilation is provided, please contact your Xerox representative for advice.

Never push objects of any kind into the ventilation vents of the product.

Operator accessible areas

This product has been designed to restrict operator access to safe areas only. Operator access to hazardous areas is restricted with covers or guards, which would require a tool to remove. Never remove these covers or guards.

Maintenance

Any operator product maintenance procedures will be described in the user documentation supplied with the product. Do not carry out any maintenance on the product, which is not described in the customer documentation.

Before cleaning your product

Before cleaning this product, unplug the product from the electrical outlet. Always use materials specifically designated for this product, the use of other materials may result in poor performance and may create a hazardous situation. Do not use aerosol cleaners, they may be flammable under certain circumstances.

CE mark: Europe only

January 1, 1995: Council Directive 73/23/EEC, amended by Council Directive 93/68/EEC, approximation of the laws of the member states related to low voltage equipment.

January 1, 1996: Council Directive 89/336/EEC, approximation of the laws of the member states related to electromagnetic compatibility.

March 9, 1999: Council Directive 99/5/EC, on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

A full declaration of conformity, defining the relevant directives and referenced standards, can be obtained from your Xerox representative.

In order to allow this equipment to operate in proximity to Industrial, Scientific and Medical (ISM) equipment, the external radiation for the ISM equipment may have to be limited or special mitigation measures taken.

This is a Class A product. In a domestic environment this product may cause radio frequency interference, in which case the user may be required to take adequate measures.

Shielded interface cables must be used with this product to maintain compliance with Council Directive 89/36/EEC.

Radio and telecommunications equipment directive (Europe only)

Certification to 1999/5/EC Radio Equipment and Telecommunications Terminal Equipment Directive:

This Xerox product has been self-certified by Xerox for pan-European single terminal connection to the analog public switched telephone network (PSTN) in accordance with Directive 1999/5/EC.

The product has been designed to work with the national PSTNs and compatible PBXs of the following countries:

Austria	Germany	Luxembourg	Sweden
Belgium	Greece	Netherlands	Switzerland
Denmark	Iceland	Norway	United Kingdom
Finland	Ireland	Portugal	
France	Italy	Spain	

In the event of problems, contact your local Xerox representative in the first instance.

This product has been tested to, and is compliant with, TBR21, a specification for terminal equipment for use on analog switched telephone networks in the European Economic area.

The product may be configured to be compatible with other country networks. Please contact your Xerox representative if your product needs to be reconnected to a network in another country. This product has no user-adjustable settings.

NOTE: Although this product can use either loop disconnect (pulse) or DTMF (tone) signaling, it should be set to use DTMF signaling. DTMF signaling provides reliable and faster call setup.

Modification or connection to external control software, or to external control apparatus not authorized by Xerox, invalidates its certification.

For further information

For more information on Environment, Health and Safety in relation to this Xerox product and supplies, please contact the following customer help lines:

Europe:+44 1707 353434

USA:1 800 8286571

Canada:1 800 8286571

Introduction

The Tape Client Job Submission Guide provides the information you need to set up and submit jobs from tape, using the Tape Client software. This document is intended for the programmer or user who submits jobs to the printer, and for the operator, who is responsible for the day-to-day operations of the DocuPrint 2000 Series 75/90/100/115/135/155/180 Enterprise Printing System.

About this guide

Before using this guide, become familiar with its contents and conventions.

Contents

This guide contains the following chapters:

- The “Introduction” provides a description of conventions used in this document, and lists related documentation.
- Chapter 1, “Tape Client Overview,” provides a description of the features, capabilities, and functions of the Tape Client.
- Chapter 2, “Managing and printing jobs from the Tape Client,” gives instructions on setting up the system to print tape jobs, and describes the procedure for printing offline to the DP 2000 Series EPS.
- Chapter 3, “Managing the Tape Client,” gives procedures for using the Tape Client user interface screens to set up the printer for offline printing, and to manage tapes.

An index is provided at the end of this document.

Conventions

This guide uses the following conventions:

- **All caps and angle brackets:** Within procedures, the names of keys are shown in all caps within angle brackets (for example, press <ENTER>).
- **Angle brackets:** Variable information, or the position of a specified argument in the command syntax, appears in angle brackets (for example, List Fonts <Pattern>).
- **Bold:** Within procedures, text and numbers that you enter are shown in bold (for example, enter **privilege operator**).
- **The word "enter" within procedures:** The two-step process of keying in data and pressing <ENTER> (for example,
  enter **y**).
- **Italics:** Document and library names are shown in italics (for example, the *Xerox DocuPrint NPS/IPS Guide to Managing Print Jobs*).
- **Quotation marks:** Keywords you can enter as arguments appear in quotes (for example, "USLetter").
- **Vertical bars:** Alternatives to specified arguments are separated by vertical bars (for example, Set Time <Time | Remote Host Name | IP Address>).

NOTE: Notes are hints that help you perform a task or understand the text.

CAUTION

Cautions alert you to an action that could damage hardware or software.

WARNING

Warnings alert you to conditions that may affect the safety of people.

Documentation

This section lists related publications and provides information on printing the customer documentation.

DocuPrint 2000 Series 100/115/135/155/180 EPS documentation

The following documents contain information on the Xerox DocuPrint 2000 Series 100/115/135/155/180 EPS:

- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Electronic Customer Documentation CD*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Operator Guide*
- *Xerox DocuPrint 2000 Series EPS Using LCDS Print Description Language*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Installation Planning Guide*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS NPS/IPS Extension Operations Guide*
- *Xerox DocuPrint 2000 Series EPS Tape Client Job Submission Guide*
- *Xerox DocuPrint EPS Font Reference Manual*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Operator Quick Reference Card*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Customer Information Quick Reference Card*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Job Submission Quick Reference Card*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Addendum to Getting Started for DocuSP 03.05.00/03.06.00*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Operator Training Instructor Guide*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Operator Training Participant Guide*
- *Xerox DocuPrint 2000 Series* 100/115/135/155/180 *EPS Programmer/Administrator Self-Study*

Printing customer documentation

To print the latest version of the customer documentation:

1. Create a queue, specifying ASCII for input and Duplex for output.
2. Insert the DOC CD into the CD drive.
3. Open a UNIX terminal window on the graphical user interface.
4. Enter:
   ```
   cd /cdrom/quantumedoc/pdfs
   ```
5. To list the names of all documents in PDF format, enter:
   ```
   ls -l
   ```
6. Enter the lpr location:
   ```
   cd /usr/ucb
   ```
7. To print the selected file (document), enter:
   ```
   lpr -P queuename/cdrom/
   quantumedoc/pdfs/filename
   ```
   where filename is the name of the file to be printed.

1. Tape Client overview

This chapter provides an overview of the features and functions of the Xerox DocuPrint 2000 Series Enterprise Printing System LCDS Tape Client software.

Features and capabilities

For offline operations, the input medium to the system is magnetic tape, which may be recorded in one of a variety of standard vendor formats. Offline printing is handled by the Tape Client software, which is an optional part of the system software.

To submit a tape job, you set up the job on the Tape Client window on the controller and click **START**. The job is submitted to the printer through the Socket Gateway. (Refer to chapter 2, "Managing and printing jobs from the Tape Client," for job setup and submission procedures.)

The system software enables you to submit LCDS print jobs from tape on a cartridge or open reel tape drive and print them on the system.

Supported tape drives

You can submit offline jobs from the Xerox 18/36-track cartridge tape drive that is offered as an option with the system from a Xerox peripheral cabinet tape drive, or from other 9-track or 36-track serial tape drives of the following supported types:

- Cartridge tape drives: 3480, 3490, 3490e, 3590
- Open reel drive: 9914

The following tapes are supported by the Tape Client:

- 18/36 track cartridge
- 9-track open reel

NOTE: The 26-track quarter-inch cartridge tape drive that is provided with the system cannot be used for submitting jobs through the Tape Client. It is used only for loading resource files.

Tape Client capabilities

The Tape Client provides the following capabilities:

- Offline printing of LCDS data stream
- Data transmission via Socket Gateway
- Submission of tape client jobs to other EPS that are running the Socket Gateway
- Processing of LCDS Print Description Language (PDL) commands in job source libraries (JSLs)

  NOTE: PDL is the legacy J11 compiler; XJDC is the DocuSP compiler.

- Tape dump
- Control by the system user interface
  - Rewinding and unloading
  - Checking tape status
  - Moving over blocks and files to reposition tape
- Tape job accounting
- Printing of multiple jobs initiated by a single Start command

Supported tape formats

The Tape Client supports the following tape formats:

- ANSI
  (HOST=IBMOS/IBMDOS/IBMDBS/IBM3200)
- Xerox ANSI
  (HOST=ANSI/XEROX)
- IBMDOS / 360
  (HOST=IBMOS/IBMDOS/IBMDBS/IBM3200)
- IBMOS / 360
  (HOST=IBMOS/IBMDOS/IBMDBS/IBM3200)
- UNIVAC SDF
  (HOST=UNIVAC)
- UNDEF
  (HOST=UNDEF)

In addition, the Fuji Xerox (FX) market supports:

- FUJITSU
  (HOST=FUJITSU)
- HITACHI
  (HOST=HITACHI)
- NEC
  (HOST=NEC/ACOS4)
- FXEWTR
  (HOST=FXEWTR)

In addition, the following client plug-ins are available:

- IBM DOS/360 POWER II
  (HOST=POWER)
- IBM POWER/VS and POWER/VSE
  (HOST=POWERVS)
- Honeywell 600/6000
  (HOST=H6000)
- ICL 2900 VME/B
  (HOST=ICL2900)

Functional overview

The Tape Client software enables transmission of data from a cartridge or open reel tape to the DP EPS controller via the Socket Gateway. Your Socket Gateway must be set up to interact with the Tape Client software. (Refer to the online help for information on Socket Gateway installation and set up.)

To interact with the Tape Client software, open the Tape Client window on the controller user interface by selecting **Tape Client...** from the System pull-down on the DocuSP Print Services window. All Tape Client functions are accessed through this window.

Streaming and spooling transmission modes

The Tape Client submits jobs to the controller through the Socket Gateway. The data can be processed in streaming or spooling mode, depending on the queue to which the tape job is sent.

On the controller, you can set up a print queue to be spooling or streaming. (Click **Help** on the Queue Manager window for instructions on setting up queues.) You specify the transmission mode by selecting the appropriate type of queue.

- **Spooling queue:** When you send a job to a spooling queue, the entire job is received by the Gateway and written to the controller disk before the job is printed.
- **Streaming queue:** When you send a job to a streaming queue, the DP EPS begins to print the job as soon as it receives enough data to start; it does not wait until the entire job has been received.

Job and tape status reporting

On the Tape Client window, you can monitor the status of the tape processing while the tape is in use. Messages are displayed in the Status field at the bottom of the window.

After the job has been sent to the DP EPS controller, you cannot view information on it from the Tape Client window. You may check job status on the Job Manager window at the controller. (Click **Help** on the Job Manager window for information on viewing and interpreting job status messages on the controller.)

Tape job accounting

The Tape Client maintains a job log file, which contains accounting data for each job. You can view and print this log.

Information is logged in the accounting file during processing at the following times:

- At the end of each file, the following information is logged:
  - Time stamp
  - Data blocks read
  - Completion status of the file
- At the end of the print job, the following information is logged:
  - Time stamp
  - Completion status of the job
  - Valid tape mounts
  - Total data blocks read
  - JDL and JDE names
  - Queue name
  - Tape file ID

The Job Log is presented in table format, with one line for each job ID.

Tape dump

You can request a tape dump (a printout of all the tape contents) in order to troubleshoot a job. You print the dump by making the appropriate specifications on the Tape Client window on the DP EPS controller, setting up a queue with the required properties, and running the tape job.

The tape dump is formatted in ASCII and is sent to the controller and printed by the ASCII decomposer.

Refer to “Starting and ending an offline dump session,” in chapter 2, “Managing and printing jobs from the tape client.”

Job recovery

If a Tape Client crash occurs during tape processing, it recovers to its last known state at the start of a file. The Tape Client maintains a file that contains all the information needed to recover from a rollover. The job is always recovered to the start, not the middle, of a file.

The Tape Client makes two attempts to recover. If it is not able to do so, a message is displayed and the Tape Client reverts to its initial state.

If the tape volume that is currently loaded is not the one that is needed for recovery, or if the Tape Client cannot determine if it is, you are prompted to load the correct volume. When you load the requested tape, the file is sent from the beginning. (This could cause some pages to be reprinted.)

If the job that is currently being received is canceled at the controller, the Socket Gateway closes the connection to the Tape Client. The Tape Client stops reading the data and rewinds or unloads the tape if requested.

In case of a system crash during printing, the Tape CLient detects a communication error and aborts the job. AFter a restart, DocuSP will continue to print the data that has been transferred and processed.

Input processing from tape using Print Description Language

You use Xerox Job Description Compiler (XJDC) commands to define parameters of tape jobs. Before selecting the PDL commands that will describe a specific job tape, you need to understand certain tape structure concepts. These concepts enable you to define job tape characteristics such as host format, block and record structure, tape translation code, packed data formats, and so forth.

Host computer tape formats

The printing system processes input tapes that are produced by the standard host computers whose formats are supported by the system (refer to “Supported tape formats,” earlier in this chapter). The HOST parameter of the VOLUME PDL command enables you to select a specific input tape. The format of each tape is described in the *Xerox LPS Tape Formats Manual*, which is delivered with your printing system.

Tape codes

Tape codes that are recognized by the system are EBCDIC and ASCII. If these codes are not sufficient for a particular tape, you may create a new code translation table or modify (customize) an existing code translation table. Tables that show the correspondence between standard recording codes and printed characters are in appendix C, “Character code assignment tables,” of the *Guide to Using LCDS Print Description Language,* which is delivered with your DP EPS. Tape codes are selected by the CODE parameter of the VOLUME PDL command.

Record formats

All tape records input to the printing system are either blocked or unblocked with a fixed length, a variable length, or an undefined format. The BLOCK and RECORD commands define the format of the input data. Tape label contents may also describe blocking and record structure, and in some cases they override BLOCK and RECORD commands that are specified in the JDL file. These labels are described in this chapter and in the *Xerox LPS Tape Formats Manual*, delivered with your DP EPS.

Record structure

A record is arbitrarily divided into two portions: operating system and user.

- The operating system portion of the record contains information that is supplied by the host operating or spooling system.
- The user portion of the record contains information that is provided by the application or the program that is running on the host system.

The boundary between the two portions of the record is traditionally between the record length and the printer carriage control (PCC) fields. The PDL RECORD command defines the components of a record.

Offline dump

The offline tape dump feature is a troubleshooting tool for tape jobs. It allows you to generate a hardcopy printout of all the characters, carriage control information, tape labels, and other information in the data stream, while a job is being transmitted and printed.

Offline dump format

- When the system encounters a tape mark while formatting for the dump, the tape mark is indicated following the block number.
- The dump of each block, tape mark, end of volume, or end of data is separated by at least one blank print line.

Dump content

The tape data stream dump contains the following information for each block that is dumped:

- Block number
- Block length
- The hex decimal number of the starting byte in each printed line of data
- The data printed in hexadecimal
- The data printed using the translation code table that is defined in the VOLUME CODE command.

2. Managing and printing jobs from the Tape Client

This chapter describes the procedures for setting up an offline LCDS job and submitting it from the Tape Client for printing on the DocuPrint 2000 Series EPS.

Overview of the printing process

This section contains an overview of the steps to set up and print an LCDS job from the Tape Client. For further details about each step, refer to the section that is specified following the step.

1. Make sure that all the resources that the job requires (forms, fonts, and JDLs) are loaded on the printer in the “lcds” resources folder.
2. If any resources are missing, import them to the controller disk from the media on which they reside. (Refer to “Importing resource files,” later in this chapter, for the procedure.)
3. Load the job tape on your tape drive. Make sure that the tape is at BOT (beginning of tape). (For instructions on loading tapes, refer to the *Xerox DocuPrint 2000 Series 100/115/135/155/180 EPS Operator Guide* for information on the Xerox DocuPrint EPS cartridge tape drive, or refer to your tape drive user documentation.)
4. Open the Tape Client window. (Refer to “Accessing the Tape Client,” in the “Managing the Tape Client” chapter.)

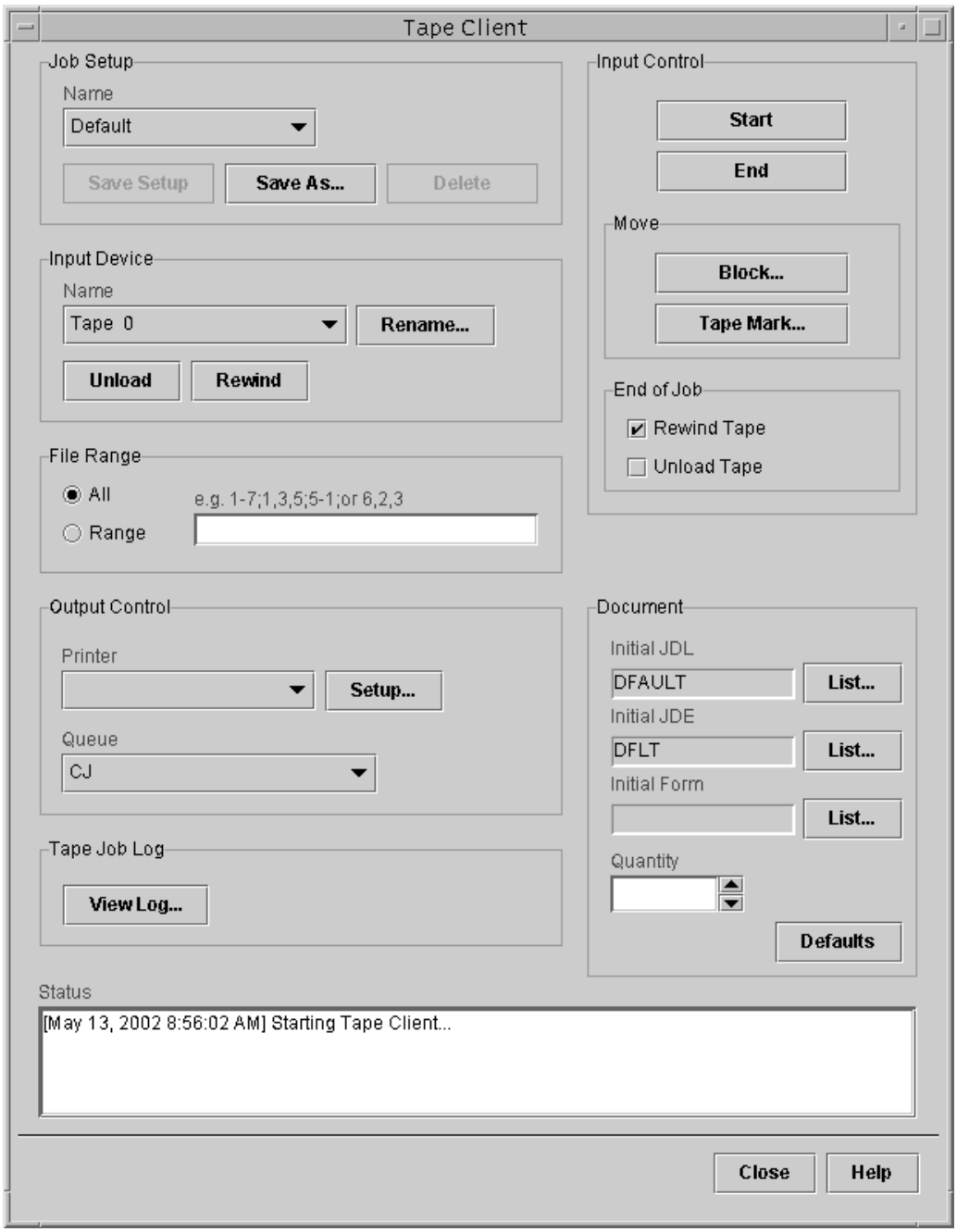

Figure 2-1. Tape Client window

5. From the Device menu in the **Input Device** group box, select the name that is assigned to the tape drive from which the job will be sent.
6. In the File Range field, specify the files on the tape that will be printed. (Refer to “Specifying files for printing.”)

7. From the Printer pulldown menu in the **Output Control** group box, select the EPS printer to which you are sending the job (for instructions on setting up a printer and the Socket Gateway, refer to the chapter “Managing the tape client” or the online help for information on the Socket Gateway.)
8. From the Queue pulldown menu, select the queue to which you want to send the job. The queue must be set up for LCDS printing. (Refer to the Help screens accessed from the Queue Manager window for instructions on setting up queues.)
9. In the **Document** group box, select the initial JDL, JDE, and form (if applicable). (Refer to “Specifying the JDL, JDE, and form to start a job.”)
10. In the **Quantity** field, click the arrow buttons until the desired copy quantity is displayed.
11. In the **End of Job** field in Input Control group box, select the action that the tape drive will take at the end of the job.

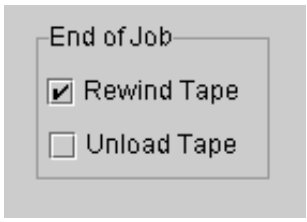

Figure 2-2. End of Job field on Tape Client window

- If you do not check any fields, the tape will not rewind and will not upload.
- **Rewind Tape** will cause the tape to rewind at the end of the job.
- **Unload Tape** will cause the tape to unload at the end of the job.

12. In the Input Control group box, click **Start** to begin printing.
13. While jobs are being received and printed, you can check the Status column on the Job Manager window for the current job status. (Refer to “Checking job status.”)

Saving a tape client setup

You can save a tape client setup including the following areas of the Tape Client window:

- Input Device
- Output Control
- End of Job
- Document

To save a tape client setup:

- Click **Save Setup** in the Job Setup area to save the setup under its current name, or
- Click **Save As...** in the Job Setup area to save the setup under a new name.

To delete a tape client setup, click **Delete**.

Preparing to print a tape job

This section describes tasks that you perform to access the Tape Client and set up a tape job for printing.

NOTE: The parameters that you specify on the Tape Client window override the settings of the queue to which the job is sent.

Importing resource files

In order to print a job from tape, the resources (forms, fonts, JDLs, JDEs, etc.) that are required by the job must be loaded in the “lcds” resources folder on the DP 2000 Series EPS system disk. If any of the resources that are needed for your job are missing from this folder, you must import them from the media on which they reside (diskette, tape, or another folder in the UNIX file system on the DP EPS controller). To import resource files to the “lcds” folder:

1. Click **Administration** on the DocuSP Print Services window.
2. Click the **Lcds Resources** tab to display the list of resources that are currently in the “lcds” folder.

3. On the Lcds Resources window, select from the Source pull-down menu the medium that contains the files that you want to import for your job. After a few seconds, a list of the directories on the source medium appears in the **Directory** field.

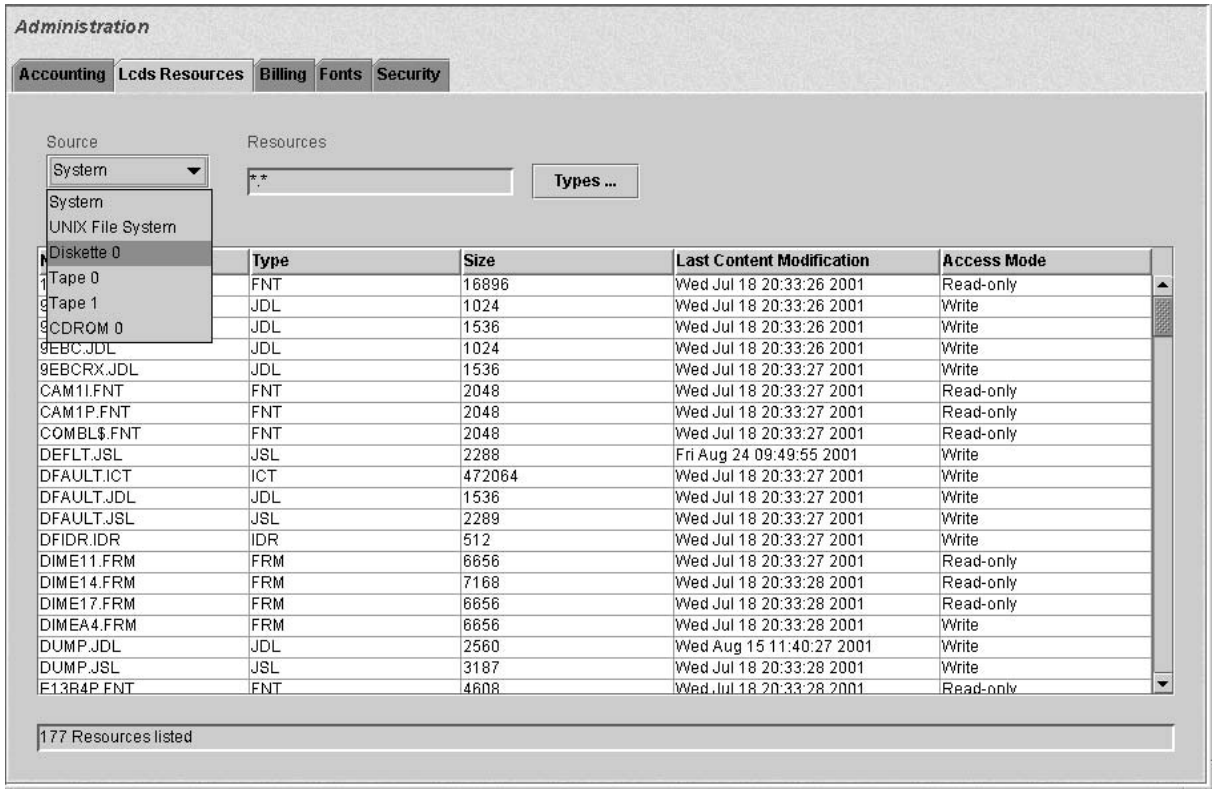

Figure 2-3. Lcds Resources window with Source menu displayed

4. Right-click in the resource list section (the large field at the right of the **Directory** and **Selection** fields).
5. Select **Redisplay** from the pop-up menu that appears. After a few seconds, a list of the resource files on the selected source medium is displayed.
6. From the resource list, select the resource files that you want to import.
   - To select multiple files, hold down the <Control> key while you click each file name to highlight it.
   - If you want to select files that are adjacent to each other on the list, hold down the <Shift> key while you click the first and last name in the range.

- To select all the resource files that are displayed, right-click in the resource list section and select **Select All** from the pop-up menu.

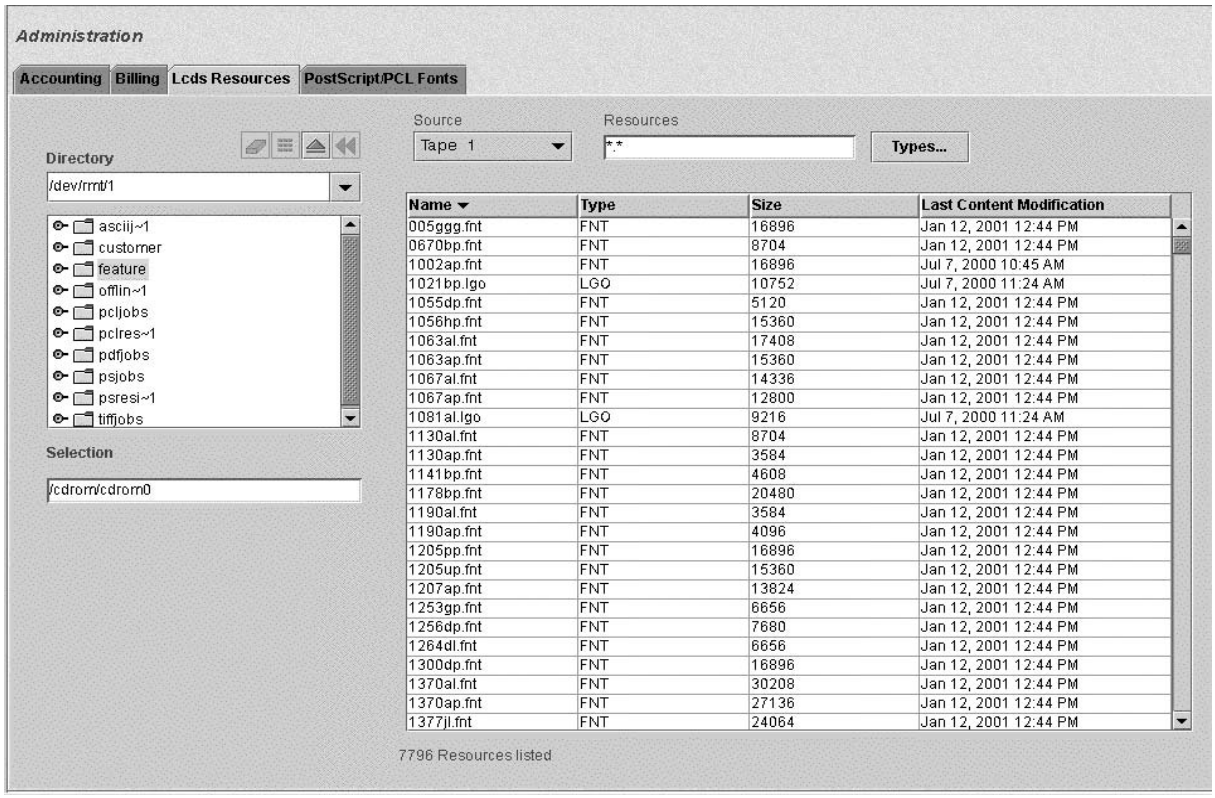

Figure 2-4. Lcds Resources window displaying resource files on tape

7. After you have selected all the files that you want, right-click in the resource list section again, and select **Import** from the pop-up menu.

Figure 2-5. Popup menu with Import selected

A Question prompt window opens, advising you that the importing process could be lengthy.

CAUTION

Imported files automatically overwrite existing files that have the same name, unless the file is read-only. You do not receive a confirmation prompt or an opportunity to cancel the file replacement.

8. Click Yes on the Question window to start importing the resource files.

Specifying files for printing

To select the files on the tape that you want to print, follow these steps:

1. Load the job tape.
2. Open the Tape Client window.
3. On the Tape Client window, do one of the following:
   - Select **All** to print all the physical files on the tape.
   - Select the **Range** button to print one or more of the physical files.

4. If you selected **Range**, enter in the **Range** text field the file numbers that you want to print, in the order that you want them to be printed.
   - Indicate a range by entering the first and last file number, separated by a hyphen (-). Numbers may be in ascending or descending order.
   - Separate numbers and ranges by commas.

   Example: 1, 4–6, 2,10–8

NOTE: Files on tape are sent to DocuSP as LCDS jobs (not as LCDS reports) with a Job ID, which will display as the Document Name on the Job Manager window.

Specifying the JDL, JDE, and form to start a job

Before you start a job, you must specify the initial job descriptor library (JDL) and job descriptor entry (JDE) that will be used for the job and for all the reports within the job that you print at that time. The JDL and JDE define the appearance of the printed job. (Refer to “The Job Source Library” in the *Using LCDS Print Description Language* manual for detailed information on JDEs and JDLs.)

You can also specify a form that will be used in all the jobs. This form prints on every page of the job.

*NOTE: If a form is already specified in the job itself, you do not have to specify it here, unless you intend to override it using a DJDE. In that case, you would specify in the **Initial Form** field the form that will override the one that was specified in the job.*

The system continues to use the resources that you specify for all the jobs and reports that you print, unless you change the specifications while the job is running.

The JDE, JDL, and form are part of the job Start command, which you enter by making selections on the Tape Client window.

*NOTE: You can also specify the JDL, JDE, and form before the jobs are sent from the Tape Client, by specifying the properties of the queue to which the jobs will be sent for printing. (Click **Help** on the Queue Manager window for the procedures for setting up a queue.)*

1. Obtain the initial JDL, JDE, and (if required) form names if you do not already know them. These resource files must be stored in the “lcds” folder on the printing system internal disk before they can be used for a print job.

   If the resources that you need are not present in the “lcds” folder, you can create them using PDL or a forms creation software package such as Elixir. You can also import the LCDS resources from diskette, tape, CD-ROM, or other folders in the UNIX file system where they may be stored. (Refer to “Importing resource files,” earlier in this chapter for the procedure.)

2. Open the Tape Client window.
3. In the Document Group box, click **Initial JDL...**, **Initial JDE...**, or **Initial Form...**. The resource library window opens for the initial resource that you selected.

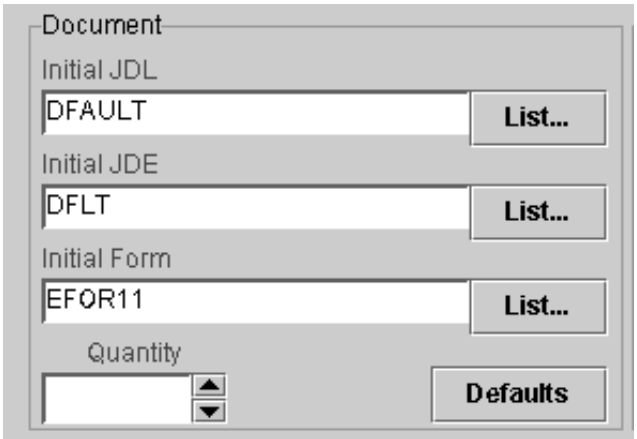

Figure 2-6. Document field on Tape Client window

Resource library windows display a list of all resource files of a selected type that are stored in the “lcds” folder on the controller disk. The following figure shows the JDL window.

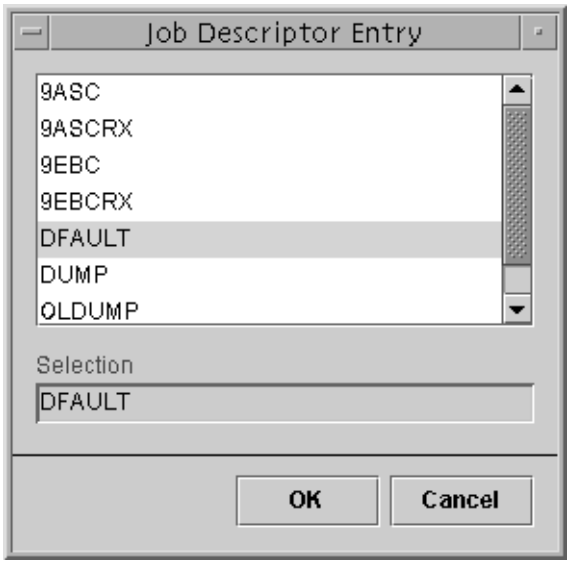

Figure 2-7. Job Descriptor Library window

4. On the resources list, click the name of the JDL, JDE, or form that you want to use for the job. Your selection appears in the read-only **Selection** field.
5. Click **OK**. The library window closes, and the name of the resource that you selected appears in the read-only **Initial...** field on the Tape Client window.

   *NOTE: If you selected a new JDL, a window displays the following message when you click **OK**:*

   You may have to select a new JDE entry.

   *When you click **OK** to close the message window, the Job Descriptor Entry library window opens. Select an initial JDE from this window, then click **OK** to close it.*

6. Repeat steps 3 through 5 for any other initial resources that you want to specify.

Controlling input for tape jobs

While a job tape is processing, you can perform the following tasks to manage the input flow.

Ending a job

To end a job before it has completed printing, click **End** on the Tape Client window. The following confirmation window displays:

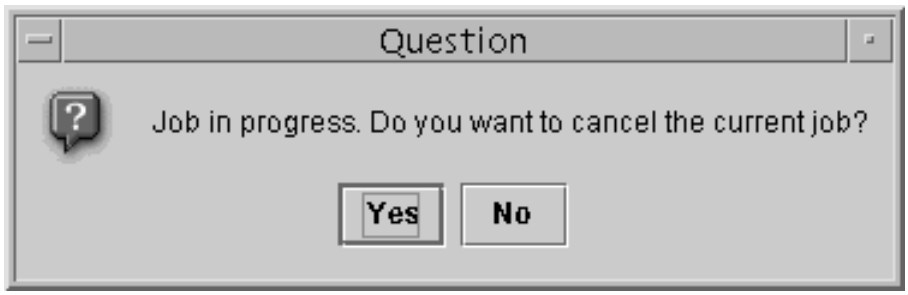

Figure 2-8. Confirmation window

Once you click **Yes**, the job is truncated, and no further data is transmitted from the tape.

However, ending the job does not delete the job from the queue on the controller. The truncated job is printed unless you cancel it on the Job Manager window. (For the procedure to cancel a job, click **Help** on the Job Manager window.)

Moving over files on a tape

If you want to skip and not print one or more of the files on a job tape, you can physically position the tape forward or backward over a specified number of tape marks. A tape mark is a marker on the tape by which the system detects the end of a file. Two tape marks indicate the end of data on a tape.

You must initiate the Move command before you start the job; you cannot move over files while the job is printing. If a job is currently printing, stop input by clicking **End** on the Tape Client window, and confirm your action on the confirmation window.

1. In the **Move** field on the Tape Client window, click **Tape Mark...**. The Move Tape Mark window opens.

Figure 2-9. Move Tape Mark window

2. On the Move Tape Mark window, enter the number of tape marks (files) that you want to skip; or click the arrow buttons until the number that you want is displayed.
3. Select the direction in which you want to move the tape: **RWD** (rewind, or backward) or **FWD** (forward).
4. Click **Move**. The Move Tape Mark window closes, and the tape advances or rewinds past the number of tape marks that you indicated.

Moving over blocks on a tape

You can position a job tape forward or backward to skip one or more of the blocks within a file on the tape.

You must initiate the Move command before you start the job; you cannot move over blocks while the job is printing. If a job is currently printing, stop input by clicking **End** on the Tape Client window, and confirm your action on the confirmation window.

1. In the **Move** field on the Tape Client window, click **Block...**. The Move Block window opens.

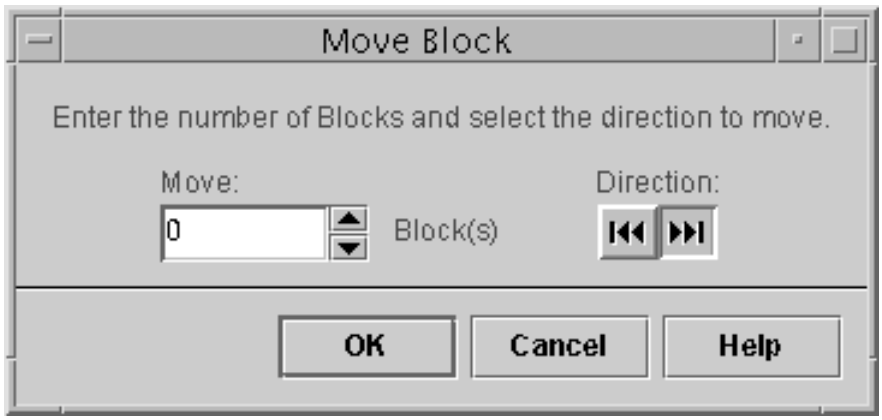

Figure 2-10. Move Block window

2. On the Move Block window, enter the number of blocks that you want to skip; or click the arrow buttons until the number that you want is displayed.
3. Select the direction in which you want to move the tape: **RWD** (rewind, or backward) or **FWD** (forward).
4. Click **Move**. The Move Block window closes, and the tape advances or rewinds past the number of blocks that you indicated.

Starting and ending tape dump sessions

To print a dump of an offline job that you wish to troubleshoot, follow these steps:

1. Specify the desired JDE and the DUMP JDL on the Tape Client window at the controller. (The DUMP JDL, which was loaded on your system at installation, specifies the VOLUME HOST=DUMP command and carious JDEs for different types of hosts.)
2. Change the properties of the queue that was specified for the job for which you are printing the dump, as follows:
   a. On the Queue Manager window, double-click the name of the queue that was specified for the tape job, to open the Properties window for that queue.
   b. Click the **Properties** tab, and select **Spooling** in the Input group box.
   c. Click the Output tab, and select **Head-to-Toe** in the Sides Imaged group box, and **ASCII** in the Format field.
   d. Click the ASCII tab, and select the following:
      - Font size
      - Landscape orientation

   (For further information on procedures for setting up a queue, click **Help** on the Queue Manager window.)
3. Run the job that you want to troubleshoot.
4. Terminate the dump session by clicking **End** on the Tape Client window.
5. Restore the original settings to the queue, or set up a separate dump queue to avoid constant modifications.

For an overview of the content of a tape dump, refer to “Offline dump format,” in the “Overview” chapter of this guide.

3. Managing the Tape Client

This chapter describes the management tasks that you may need to perform when using the Tape Client.

Accessing the Tape Client

To access the windows from which you can operate and manage the Tape Client, follow this procedure:

1. On the Print Services window, select **Tape Client...** from the **System** menu. The Tape Client main window opens.

   From this window, you can set up, start, and end LCDS jobs on tape, as well as initiate all Tape Client management tasks.

2. Perform any necessary management or job setup tasks, or start the job.

Setting up the printer for offline printing

Before you can use the Tape Client to submit jobs to a printer, make sure the Socket Gateway is configured and enabled. (Refer to the online help for information on Socket Gateway configuration and set up.) In addition, your printer must be set up on the Tape Client windows. You may have more than one printer connected to the Tape Client. (Refer to “Adding a printer,” later in this chapter.)

Follow these steps to set up a printer for the Tape Client:

1. Open the Tape Client window. (Refer to “Accessing the Tape Client,” in the previous section.)
2. In the Output Control group box on the Tape Client window, select the name of the printer that you want to set up.

3. Click **Setup...**. The Printer Setup window opens.

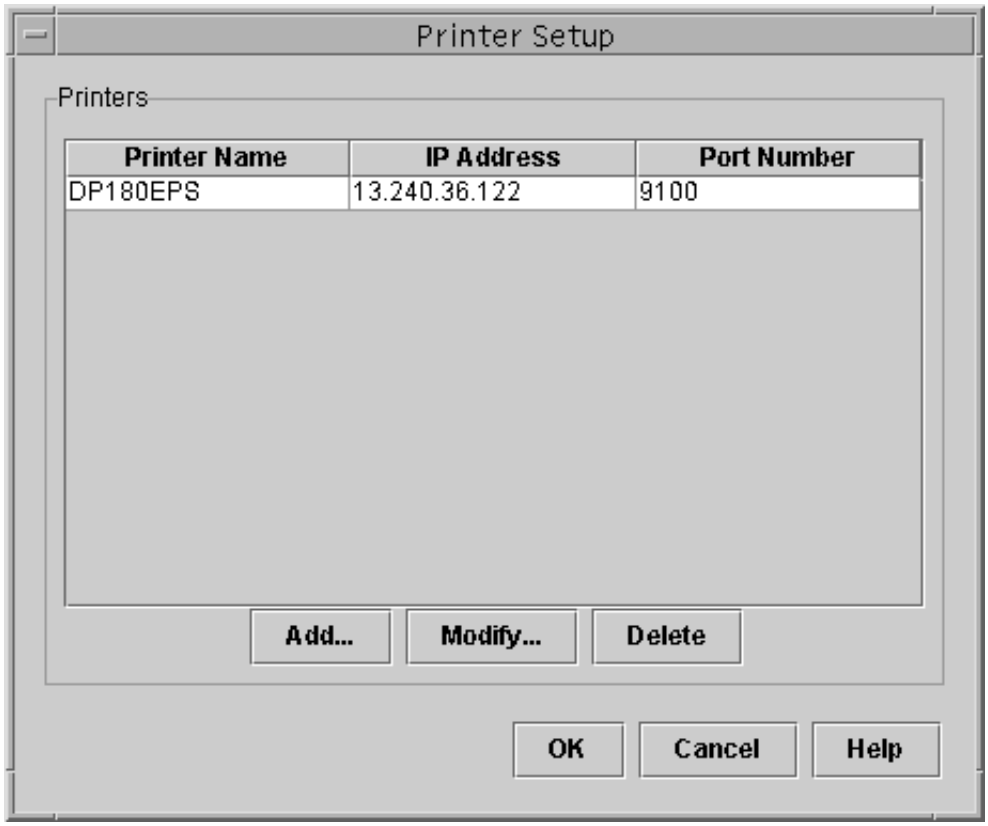

Figure 3-1. Printer setup window

4. Click the appropriate button to initiate one of the setup tasks that are explained in the following sections.

Adding a printer

To add a printer to the list of printers to which you can submit jobs from tape, follow these steps:

1. On the Printer Setup window, click **Add...**. The Add Printer window opens.
2. On the Add Printer window, specify the name, host printer address and port number of the printer in the fields that are provided.
3. Click **OK**. The information on the new printer is displayed as a line on the Printers list on Printer Setup window.

Modifying a printer

To change properties of a printer that is on your printer list, follow these steps:

1. On the Printer Setup window, select the name of the printer that you want to change.
2. Click **Modify...**. The Modify Printer window opens.

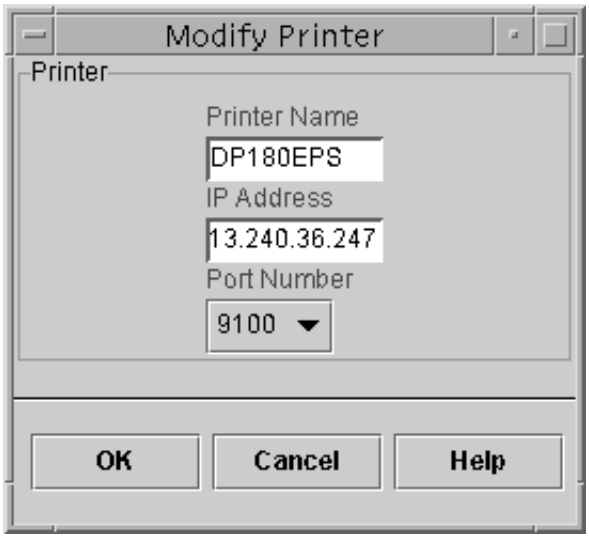

Figure 3-2. Modify Printer window

3. On the Modify Printer window, make the desired changes in the fields that are available.
4. Click **OK**. The new information is displayed on the Printers list on the Printer Setup window.

Deleting a printer

To delete a printer from the printer list, follow these steps:

1. On the Printer Setup window, select the name of the printer that you want to remove from the list.
2. Click **Delete**. A confirmation prompt window opens.
3. Click **OK** on the prompt window. The printer name is removed from the Printers list.

Managing the tape drive

In the Input Device group box on the Tape Client window, you can initiate the following tasks to manage the tape drive from which you are sending jobs.

Renaming a tape drive

If you have more than one tape drive connected to your printer, you must select the drive that you want to use to send the job. When the printing system is installed and your tape drives are configured on it, the system names them “Tape 0,” “Tape 1,” etc. If you want to assign a different name to a tape drive, follow these steps:

1. On the Tape Client window, select the drive that you want to rename from the Device menu.
2. Click **Rename...**. The Rename Device window opens, displaying in the **Old Name** field the name of the drive that you selected.

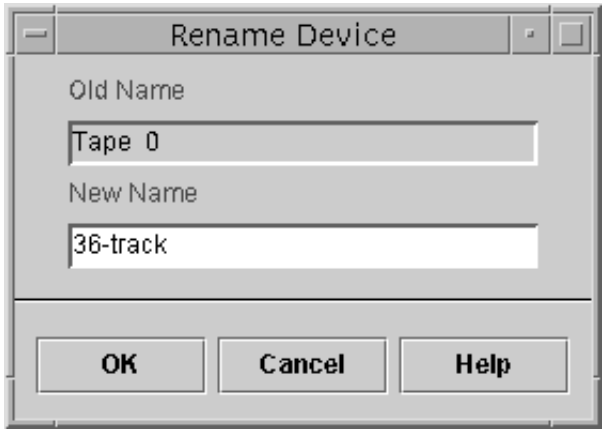

Figure 3-3. Rename Device window

3. In the **New Name** text field, enter the name you want to give the tape drive.
4. Click **OK**. The Rename Device window closes, and the new drive name is displayed on the Device menu.

NOTE: The renaming of the tape drive applies to the Tape Client window, not to the DocuSP window.

Rewinding or unloading a tape

In the Input Device group box, you may rewind or unload the tape in the tape drive.

1. From the Device menu, select the name of the drive in which the tape is loaded.
2. Click **Rewind** or **Unload**.

Managing the tape job accounting log

The Tape Client tracks and captures information on all tape jobs that it processes, and stores that information in the tape job log. Each job is represented by a line on the Job Log window, and the following information is recorded in columns for each job:

- Print Request/Job ID
- Time Stamp (date and time)
- Status (completed, pending, printing, etc.)
- Valid Tape Mounts (number of tape volumes that were loaded)
- Data Blocks Read
- JDL/JDE
- Queue Name
- File Name

The information is updated at the end of each file that is processed, and at the end of each job. To display the updated window, click **Redisplay**.

The following figure shows the Job Log window with no jobs displayed.

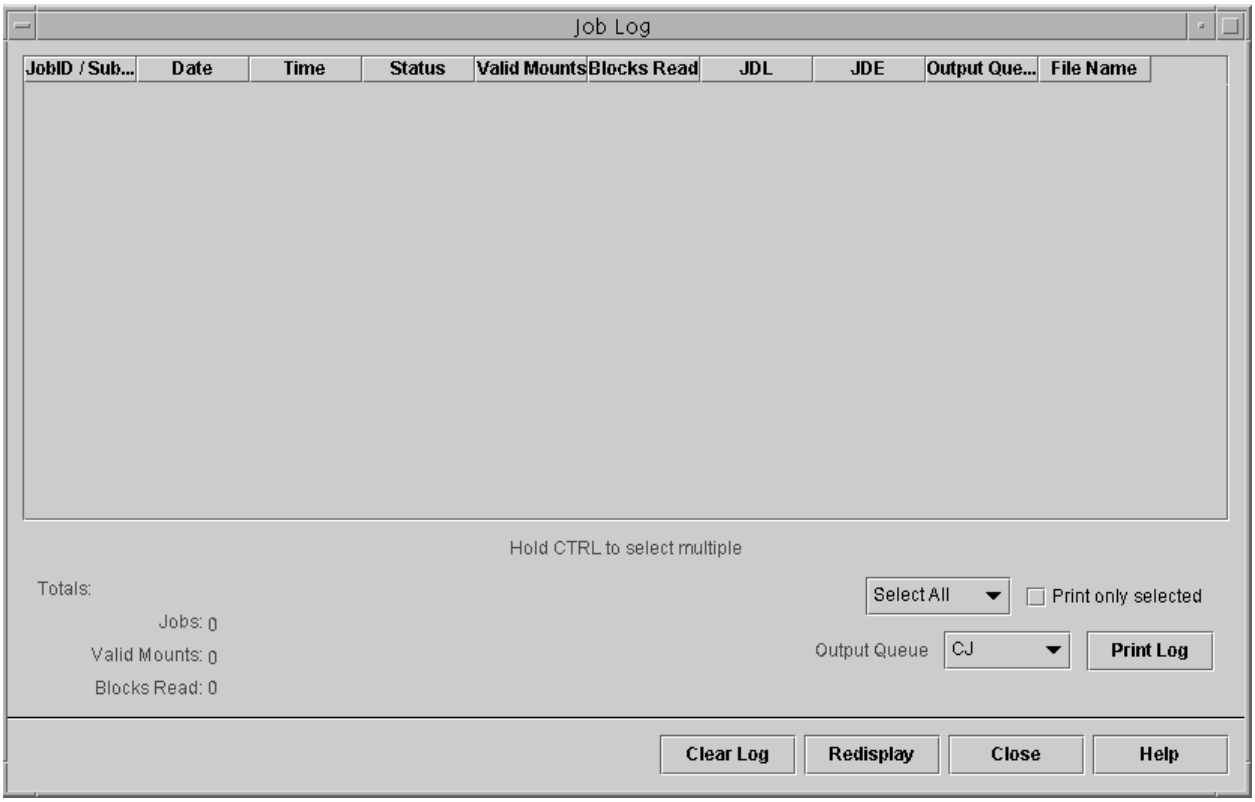

Figure 3-4. Job Log window

From the Job Log window, you can perform the management tasks that are described in the following sections.

Viewing the job log

To open the Job Log window to view the accounting log, click **Job Log...** on the Tape Client window. The Job Log window opens, displaying a list of all tape jobs that have been sent.

Printing the job log

To print the job log, follow these steps:

1. On the Job Log window, select the log entries that you want to print.
   - To print the entire log, click **Select All**.
   - To print selected entries from the log, click each line that you want to print, to highlight it. Select the **Print only selected** check box.
2. Click **Print Log**.

The accounting file is sent to the printer as an ASCII job.

Clearing the job log

When the accounting log has less than 500 KB of space left, you a message window is displayed, asking you to clear the log. If you do not clear the log at this time, the log is cleared automatically when it is full.

To clear the log, click **Clear Log** on the Job Log window.

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